

IN THE CLAIMS

Please amend the claims as follows:

1. (Previously Presented) A method for searching, comprising:
receiving a three dimensional object;
searching one or more data stores with the three dimensional object as a first search query;
presenting results from the search, wherein the results include an answer set;
dynamically receiving modifications for one or more items in the answer set; and
re-searching the one or more data stores with the modifications associated with the one or more items as a second search query.
2. (Original) The method of claim 1 further comprising, converting the three dimensional object into a graph skeleton defining a graph data structure, wherein the graph data structure is the first search query.
3. (Original) The method of claim 1 wherein receiving the three dimensional object further includes interactively permitting the three dimensional object to be sketched.
4. (Original) The method of claim 1 wherein the receiving the three dimensional object further includes presenting a list of three dimensional models and permitting the three dimensional object to be formed from selective ones of the list of three dimensional models.
5. (Original) The method of claim 1 wherein the presenting the results further include grouping selective portions of the one or more items in the answer set into related clusters.
6. (Original) The method of claim 1 further comprising, receiving one or more filters which constrain the first or second search queries.

7. (Previously Presented) The method of claim 1 wherein the re-searching further includes identifying in the modifications for the one or more items information that identifies selective ones of the items that are more relevant to the first search query than selective other ones of the items.
8. (Original) A method of searching, comprising:
receiving a two dimensional object;
mapping the two dimensional object to a three dimensional representation;
searching one or more data stores with the three dimensional representation as a first search query; and
presenting one or more items in an answer set that is responsive to the first search query of the one or more data stores.
9. (Original) The method of claim 8 wherein the mapping further includes:
representing the two dimensional object as a two dimensional skeleton;
converting the two dimensional skeleton into a three dimensional skeleton; and
representing the three dimensional skeleton as a three dimensional graph structure,
wherein the three dimensional graph structure is used as the first search query.
10. (Original) The method of claim 8 further comprising:
receiving relevance indications for a selective number of the one or more items in the answer set; and
searching the one or more data stores with the selective number of the one or more items and the relevance indications as a second search query.
11. (Original) The method of claim 10 retaining the relevance indications as preferences for subsequent search queries received and processed, where the retained relevance indications are used as filters to subsequent first queries.

12. (Original) The method of claim 8 further comprising organizing the answer set as a plurality of related clusters, wherein each related cluster includes a selective number of the one or more items.
13. (Original) The method of claim 8 wherein the mapping further includes:
converting the two dimensional object into a two dimensional skeleton;
generating candidate three dimensional vertices for each of two dimensions of the two dimensional skeleton;
generating candidate three dimensional edges from the candidate three dimensional vertices;
creating candidate three dimensional faces from the three dimensional edges on a same surface;
creating one or more three dimensional objects from the candidate three dimensional faces; and
associating the one or more three dimensional objects with the received two dimensional object as the three dimensional skeleton.
- 14.-74. (Canceled)
75. (New) The method of claim 5 further comprising, selecting a cluster to allow further browsing within that selected cluster.
76. (New) The method of claim 6, wherein one said filter comprises a total volume filter.
77. (New) A method for searching, comprising:
receiving a three dimensional object;
converting the three dimensional object into a skeletal graph;
searching one or more data stores for graphs that are similar to the skeletal graph;
presenting results from searching, wherein the results include an answer set;
dynamically receiving modifications for one or more items in the answer set; and

re-searching the one or more data stores with the modifications associated with the one or more items as a search query.

78. (New) The method of claim 77, wherein searching further includes:

using a high-level graph matcher to determine whether graphs in the one or more data stores satisfy criteria; and

using a low-level graph matcher to evaluate similarity between the skeletal graph and the graphs in the one or more data stores that satisfy the criteria.

79. (New) The method of claim 78, wherein the criteria include topology criteria and geometric properties.

80. (New) The method of claim 79, wherein the geometric properties comprise at least one of:

edge type;

curvature information for surface loops;

a parametric equation of a curve;

local volume of features that converge;

local moments of the features that converge; and

local distances from a surface.

81. (New) The method of claim 78, wherein the low-level graph matcher compares geometric feature attributes of the skeletal graph and of the graphs in the one or more data stores that satisfy the criteria.